THERE IS CLAIMED:

1. A method of fabricating a buried ribbon semiconductor laser structure, said method including the steps of:

   (b) forming a p-doped confinement layer on top of a III-V material substrate,

   (c) forming a thin n-doped layer,

   (d) forming an active layer,

   (f) locally etching said active layer, said thin n-doped layer and a portion of the thickness of said p-doped confinement layer to form a mesa including said ribbon, and

   (g) burying said ribbon in an n-doped layer so that the lateral faces of said ribbon are all adjacent an n-doped layer.

2. The method claimed in claim 1 applied to a p-doped III-V material wafer, which method further includes, after step (g) of burying said ribbon in said burying layer, the steps of:

   (g1) etching to reduce the width of said layer, to remove portions on either side of said mesa but not adjacent said mesa so that after such etching said ribbon is still buried in said burying layer, the etched layer having a reduced width, a top surface and surfaces substantially perpendicular to the plane of the top or bottom faces of said ribbon, and

   (g2) masking said top surface of said burying layer of reduced width and depositing a dielectric material insulative layer so that said insulative layer covers lateral surfaces of said burying layer and portions of said p-doped confinement layer on either side of said mesa.

3. The method claimed in claim 1, further including the following step after step d) of forming said laser active layer:

   (e) forming a thin layer to protect said laser active layer.

4. The method claimed in claim 1, further including the following step after step g) of growing said confinement layer:

   (h) depositing a metallization layer on top of said confinement layer.

5. The method claimed in claim 2, further including the following step after said step (g2) of depositing a dielectric material insulating layer:

   (h') depositing a metallization layer on top of said etched confinement layer.

6. A method of fabricating a semiconductor laser structure as claimed in claim 4, further including:

- the following step (a) before the step (b) of depositing said confinement layer on top of said III-V material substrate:

(a) epitaxially growing a p-doped contact layer, and

- the following steps (k) and (l) after said step (h) of depositing said metallization layer:

(k) overturning said wafer onto a second wafer and eliminating said substrate, and

(l) depositing a metallization layer on top of said contact layer.

7. A method according to claim 6 of fabricating a semiconductor laser structure, further including a step of implanting protons in lateral outside portions of p-doped layers.
8. A buried ribbon laser including a ribbon forming part of a buried mesa, said ribbon having four lateral faces, i.e. a top face, a bottom face, and two faces joined to the top and bottom faces, wherein said lateral bottom and top faces of said ribbon are adjacent an n-doped layer.
9. The buried ribbon laser claimed in claim 8 wherein said lateral faces joining said top and bottom faces are also adjacent an n-doped layer.
10. The buried ribbon laser claimed in claim 8 wherein an n-doped layer less than 1 μm thick separates said ribbon from a p-doped layer.
11. The buried ribbon laser claimed in claim 8, including portions perpendicular to the planes of said top and bottom faces of said ribbon of a dielectric material layer on either side of said mesa incorporating said ribbon.
12. The buried ribbon laser claimed in claim 11 wherein the dielectric material layer portions on either side of said mesa incorporating said ribbon are separated from each other by a distance substantially equal to four times the width of said ribbon.